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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,095	01/21/2004	Aaron Schipper	TCI-P0003	4559

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EXAMINER

KURTZ, BENJAMIN M

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,095

Applicant(s)

SCHIPPER, AARON

Examiner

Benjamin Kurtz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-31-04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 7-8 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wheeler U.S. Patent No. 2,925,913.

Regarding claim 7, Wheeler (913) discloses a coalescing medium assembly, for removing debris from a flow of liquid, comprising: a plurality of wire mesh tubes (25) oriented substantially parallel to each other and a wire mesh retaining wall (28) substantially surrounding the tubes (25) (fig. 2).

Regarding claim 8, the medium assembly includes a band, the flange from the header (26,27), wrapped around the retaining wall (28) (col. 4, lines 34-35).

Regarding claim 21, Wheeler (913) discloses an apparatus, for removing debris from a flow of liquid, comprising: a shell (21), an inlet (23) an outlet (24) and an elongate inner cavity in fluid communication with each of the inlet (23) and the outlet (24), and a plurality of tubes (25) tightly packed within the cavity of the shell (21) such that the tubes are oriented substantially parallel to each other and at least one of the tubes (25) having a discontinuous surface (fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler (913). Wheeler (913) discloses wire mesh tubes (25) have an outer diameter and the wire mesh of the tubes (25) and the retaining wall (28) have a thickness but does not disclose a specific dimension. It would have been an obvious matter of design choice to one having ordinary skill in the art at the time the invention was made to use the range of outer diameters from 0.4 to 0.8 inches and the wire thickness of between 0.02 and 0.04 inches.

3. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler (913) in view of Basse et al. U.S. Patent No. 4,985,182. Wheeler (913) discloses the wire mesh tubes (25) but does not include a projecting element extending from an inner surface of the tube into an interior of the tube or an elongate surface area-providing element disposed within an interior of a tube. Basse (182) teaches a wire mesh tube (10) including a projection (16) extending from an inner surface of the tube (10) and into an interior of the tube (10) and the projection (16) is an elongate surface-area providing element disposed within an interior of the tube (10) (fig. 1, col. 3, lines 60-68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the projection (16) of Basse (182) with the assembly of

Wheeler (913) because the projections define flow paths making good ventilation in the cross and longitudinal directions (col. 1, lines 62-66).

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler (913) in view of Muller U.S. Patent No. 4,443,346. Wheeler (913) discloses the assembly but does not disclose an elongate core element. Muller (346) teaches an assembly comprising an elongate core element (5) surrounded by tubes (1) and oriented substantially parallel to the tubes (1), the core element (5) having a longitudinal axis and at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction and the core element (5) comprises a cylindrical tube (fig. 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the elongate member of Muller (346) in the assembly of Wheeler (913) because the member serves for supporting the filter tubes (col. 2, line 48).

5. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (346) in view of Wheeler (913).

Regarding claims 15 and 17, Muller (346) discloses a coalescing medium assembly, for removing debris from a flow of liquid, comprising: an elongate core element (5) having a longitudinal axis, at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction and a plurality of tubes (1) surrounding the core element (5) and oriented substantially parallel to the core element (5) (fig. 1 and 2), but does not disclose the tubes (1) being wire mesh. Wheeler (913) teaches an assembly having a plurality of wire mesh tubes that

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can be made of stainless steel (25) (fig. 2, col. 3, lines 3-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the tubes of Wheeler (913) in the assembly of Muller (346) because the filtering material is capable of sustaining structural loads (col. 1, lines 61-65).

Regarding claims 16, 18-20, Muller (346) further discloses each of the tubes (1) and the elongate core (5) have a substantially equal width, the tubes (1) are arranged in a substantially circular pattern viewed in the longitudinal direction and each tube (1) engages two adjacent tubes (1), the elongate core element (5) engages each of the tubes (1) and the elongate core element (5) comprises a cylindrical tube (fig. 1 and 2).

6. Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blace U.S. Patent No. 4,051,033 in view of Wheeler (913).

Regarding claims 1-2, Blace (033) discloses an apparatus, for removing debris from a flow of liquid, comprising: a shell (14) having an inlet (56), an outlet (48) and an elongate inner cavity in fluid communication with each of the inlet (56) and the outlet (48) and a plurality of elongate coalescing medium assemblies (10) disposed within the cavity of the shell (14) such that the medium assemblies (10) are oriented substantially parallel to the each other but does not disclose the assemblies including the mesh tubes or mesh retaining wall. Wheeler (913) teaches a coalescing medium assembly, for removing debris from a flow of liquid, including: a plurality of wire mesh tubes (25) oriented substantially parallel to each other and a wire mesh retaining wall (28) substantially surrounding the tubes (25) and the assembly includes a band, the flange from the header (26,27), wrapped around the retaining wall (fig. 2). It would have been

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obvious to one having ordinary skill in the art at the time the invention was made to use the assemblies of Wheeler (913) in the apparatus of Blace (033) because the assembly of Wheeler is capable of sustaining structural loads (col. 1, lines 61-65).

Regarding claim 6, Blace (033) in view of Wheeler (913) teaches the apparatus but does not teach the claimed location of the inlet and outlet. It would have been an obvious matter of design choice to one having ordinary skill in the art at the time the invention was made to locate the inlet and outlet along a longitudinal direction between opposite ends of the medium assemblies.

7. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blace (033) in view of Wheeler (913) as applied to claim 1 above, and further in view of Muller (346).

Regarding claim 3, Blace (033) in view of Wheeler (913) teaches the apparatus but does not teach an elongate core element. Muller (346) teaches an elongate core element (5) having a longitudinal axis, at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction and a plurality of tubes (1) surrounding the core element (5) and oriented substantially parallel to the core element (5) (fig. 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assemblies with the teachings of Muller (346) because the central tube serves for supporting the filter tubes (col. 2, line 48).

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Regarding claim 5, Blace (033) further discloses an end cap (16) including a plurality of recesses (formed by member (94), fig. 9 and 10, col. 4, lines 28-34) each member (10) being received in a recess.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Kurtz whose telephone number is 571-272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bk 4/13/2006


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